



PTO/SB/08a (08/03)

Approved for use through 7/31/06. OMB 0651/0031

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1996, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Complete if Known

Application Number	10/046,416
Filing Date	10/19/2001
First Named Inventor	Arthur R. Telkamp
Art Unit	2882
Examiner Name	Sung H. Pak
Attorney Docket Number	703427.6

Sheet 1 of 2

U.S. PATENT DOCUMENTS

Examiner Initials	Cite No. ¹	U.S. Patent Document	Publication Date MM/DD/YYYY	Name of Patentee or Applicant of Cited Document
		Number/Kind Code ² (if known)		
SP	1	5,039,191	07/1991	Myszka
SP	2	5,278,692	01/1994	Delapierre
SP	3	5,357,590	10/1994	Auracher
SP	4	5,596,662	01/1997	Boscher
SP	5	5,623,564	04/1997	Presby
SP	6	5,920,665	07-1999	Presby
SP	7	5,926,594	06/1999	Song et al.
SP	8	5,970,192	10/1999	Osugi et al.
SP	9	6,101,299	08/2000	Laor
SP	10	6,122,423	08/2000	You et al
SP	11	6,175,675 B1	01/2001	Lee et al.
SP	12	6,219,472 B2	04/2001	Horino et al.
SP	13	6,253,011 B1	06/2001	Haake et al.
SP	14	6,275,326 B1	08/2001	Bhlia et al.
SP	15	6,388,789 B1	05/2002	Bernstein
SP	16	6,411,765 B1	06/2002	Ono
SP	17	6,654,523 B1	11/2003	Cole
SP	18	20020094151 A1	07/2002	Li

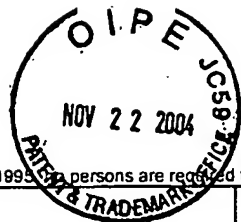
FOREIGN PATENT DOCUMENTS

Examiner Initials	Cite No. ¹	Foreign Patent Document	Publication Date MM/YYYY	Name of Patentee or Applicant of Cited Document	T ⁶
		Country ³ Number ⁴ Kind Code ⁵ (if known)			
SP	19	DE 3817035 C1	08/1989	Messerschmitt/Bölkow/Blom GmbH	
SP	20	EP 0 545 584	11/1992	American Teleph & Telegr	
SP	21	JP 10-227986 (abstract only)	08/1998	Horino et al.	
SP	22	JP 06109990 (abstract only)	04/1994	Sumitomo Wiring Syst Ltd.	
SP	23	JP 58068702	04/1983	Nippon Telegr & Teleph Corp.	
SP	24	JP 63063006 (abstract only)	03/1988	Yokohama Kokuitsu Univ.	
SP	25	JP 04177225 (abstract only)	06/1992	Shioda Takao	
SP	26	JP 10123373 (abstract only)	05/1998	Kyocera Corp.	
SP	27	WO 01/77742 A2	10/2001	Lightwave Microsystems Corp.	

Examiner Signature	<i>Sung Pak</i>	Date Considered	1/21/05
-----------------------	-----------------	--------------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicants unique citation designation number (optional). ²See Kinds of U.S. Patent Documents at www.uspto.gov or MPEP 801.04. ³Enter Office that issued the document, by the two/letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is govern by 35 USC 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you are required to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313/1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS, SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313/1450



PTO/SB/08a (08/03)

Approved for use through 7/31/06. OMB 0651/0031

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Complete if Known

Application Number	10/046,416
Filing Date	10/19/2001
First Named Inventor	Arthur R. Telkamp
Art Unit	2882
Examiner Name	Sung H. Pak
Attorney Docket Number	703427.6

OTHER PRIOR ART / NON PATENT LITERATURE DOCUMENTS

Examiner Initials ¹	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume/issue number(s), publisher, city and/or country where published.	T ²
SP	28	Bahadori, et al., <i>Automated Fiber-Waveguide Array Alignment</i> , Journal of Optical Communications, Fachverlag Schiele & Schon, Berlin, Germany, Vol. 10, no. 2, June 1, 1989, pages 54-55	

DOCSOC1:157250.1

Examiner Signature	Sung Pak	Date Considered	1/21/05
-----------------------	----------	--------------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicants unique citation designation number (optional). ²See Kinds of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two/letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98: The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 USC 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you are required to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313/1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS, SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313/1450

FORM PTO-1449 LIST OF PATENTS AND OTHER ITEMS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"> ATTY. DOCKET NO. 268/001 </td> <td style="width: 50%;"> SERIAL NO. 10/046,416 </td> </tr> <tr> <td colspan="2"> APPLICANT: Telkamp, et al. </td> </tr> <tr> <td> FILING DATE: October 19, 2001 </td> <td> GROUP: N/A </td> </tr> </table>	ATTY. DOCKET NO. 268/001	SERIAL NO. 10/046,416	APPLICANT: Telkamp, et al.		FILING DATE: October 19, 2001	GROUP: N/A
ATTY. DOCKET NO. 268/001	SERIAL NO. 10/046,416						
APPLICANT: Telkamp, et al.							
FILING DATE: October 19, 2001	GROUP: N/A						

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
SP	AA	4,693,547	9/15/1987	Soref, et al.	350	96.13	2/24/1986
SP	AB	5,235,672	8/10/1993	Carson	395	24	2/6/1991
SP	AC	5,245,458	9/14/1993	Taylor	359	108	2/22/1990
SP	AD	5,757,986	5/26/1998	Crampton, et al.	385	2	9/21/1993
SP	AE	5,761,350	6/2/1998	Koh	385	14	1/22/1997
SP	AF	5,828,800	10/27/1998	Henry, et al.	385	20	6/23/1997
SP	AG	5,923,798	7/13/1999	Aksyuk, et al.	385	19	5/15/1997
SP	AH	5,990,473	11/23/1999	Dickey, et al.	250	231.13	2/4/1998
SP	AI	6,072,924	6/6/2000	Sato, et al.	385	18	9/2/1997
SP	AJ	6,137,941	10/24/2000	Robinson	385	140	9/3/1998
SP	AK	6,148,124	11/14/2000	Aksyuk, et al.	385	24	11/20/1998
SP	AL	6,205,267 B1	3/20/2001	Aksyuk, et al.	385	19	11/20/1998

FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES NO	
SP	AM EP1004910A2	5/31/2000	EP				X

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)		
SP	AN	Benaissa, K.; and Nathan, A.; "Silicon Anti-Resonant Reflecting Optical Waveguides for Sensor Applications;" <i>Journal of Sensors and Actuators (A Physical)</i> , Vol. A65, 33-44, 1998
SP		Brown, K.S.; Taylor, B.J.; Dawson, J.M.; Hornak, L.A.; "Polymer Waveguide Co-integration With Microelectromechanical Systems (MEMS) for Integrated Optical Metrology;" <i>Proceedings of the SPIE (The International Society for Optical Engineering)</i> , Vol. 3276, 1998
SP		Burcham, Kevin E.; and Boyd, Joseph T.; "Freestanding, Micromachined, Multimode Silicon Optical Waveguides at $\lambda = 1.3 \mu\text{m}$ for Microelectromechanical System Technology;" <i>Journal of Applied Optics</i> , Vol. 37, No. 36, 20 December 1998

EXAMINER: <i>Sung Pak</i>	DATE CONSIDERED: <i>1/21/05</i>
EXAMINER: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include a copy of this form with next communication to applicant	

FORM PTO-1449	ATTY. DOCKET NO.	SERIAL NO.
	268/001	10/046,416
	APPLICANT:	
	Telkamp, et al.	
LIST OF PATENTS AND OTHER ITEMS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT	FILING DATE:	GROUP:
	October 19, 2001	N/A
(Use several sheets if necessary)		

SP	Churenkov, A.V.; "Silicon Micromechanical Optical Waveguide for Sensing and Modulation;" <i>Journal of Sensors and Actuators (A Physical)</i> , Vol. A57, No. 1, October 1996
SP	Cook, J.P.D.; Este, G.O.; Shepherd, F.R.; et al.; "Stable, Low-Loss Optical Waveguides and Micromirrors Fabricated in Acrylate Polymers" <i>Applied Optics Journal</i> , Vol. 37, No. 7, March 1, 1998
SP	Cornett, Kimberly T.; Heritage, Jonathan P.; Solgaard, Olav; "Compact Optical Delay Line Based on Scanning Surface Micromachined Polysilicon Mirrors;" 2000 IEEE/LEOS International Conference on Optical MEMS, Kauai, Hawaii, August 21-24, 2000
SP	de Labacherie, M.; Kaou, N.; et al.; "A Micromachined Connector for the Coupling of Optical Waveguides and Ribbon Optical Fibers;" <i>Journal of Sensors and Actuators (A Physical)</i> , Vol. A89, No. 1-2, March 20, 2001
SP	Eng, Terry T.H.; Kan, Sidney C.; and Wong, George K.L.; "Voltage-Controlled Micromechanical SOI Optical Waveguides;" <i>IEEE TENCON, IEEE Region 10 International Conference on Microelectronics and VLSI - "Asia Pacific Microelectronics 2000" - Proceedings, 1995</i>
SP	Eng, Terry T.H.; Kan, Sidney C.; and Wong, George K.L.; "Surface-Micromachined Epitaxial Silicon Cantilevers as Movable Optical Waveguides on Silicon-on-Insulator Substrates;" <i>Journal on Sensors and Actuators A, Physical</i> , Vol. A49, No. 1-2, June 1995
SP	Eng, Terry T.H.; Kan, Sidney C.; and Wong, George K.L.; "Surface-Micromachined Movable SOI Optical Waveguides;" <i>Proceedings of the International Solid-State Sensors and Actuators Conference - Transducer, 1995</i>
SP	Gorecki, Christopher; "Optimization of Plasma-Deposited Silicon Oxinitride Films for Optical Channel Waveguides;" <i>Journal of Optics and Laser Engineering</i> , Vol. 33, No. 1, January 2000
SP	Haronian, D.; "Bottlenecks of Opto-MEMS;" <i>SPIE Proceedings - Micro-Opto-Electro-Mechanical Systems, Glasgow, UK, May 22-23, 2000</i>
SP	Haronian, D.; "Displacement Sensing Using Geometrical Modulation in Reflection Mode (GM-RM) of Coupled Optical Waveguides;" <i>Journal of Micromechanics and Microengineering</i> , Vol. 8, No. 4, December 1998
SP	Haronian, D.; "Suspended Optical Waveguide With In-Plane Degree of Freedom or Microelectro-Mechanical Applications;" <i>Electronics Letters</i> , Vol. 34, No. 7, 2 nd April 1998
SP	Hoffmann, Martin; Kopka, Peter; and Voges, Edgar; "Thermo-optical Digital Switch Arrays in Silica-on-Silicon With Defined Zero-Voltage State;" <i>Journal of Lightwave Technology</i> , Vol. 16, No. 3, March 1998
SP	Jin, Young-Hyun; Seo, Kyoung-Sun; et al.; "An SOI Optical Microswitch Integrated With Silicon Waveguides and Touch-down Micromirror Actuators;" 2000 IEEE/LEOS International Conference on Optical MEMS, 21-24 August, 2000
SP	Koyanagi, Mitsumasa; "Optical Interconnection Using Polyimide Waveguide for Multi-Chip Module;" <i>Proceedings of SPIE, Society of Photo-Optical Instrumentation Engineers, San Jose, CA, 1996</i>
SP	Kruger, Michiel V.P.; Guddal, Michael H.; et al.; "Low Power Wireless Readout of Autonomous Sensor Wafer Using MEMS Grating Light Modulator;" 2000 IEEE/LEOS International Conference on Optical MEMS, Kauai, Hawaii, August 21-24, 2000
SP	Kuwana, Yasuhiro; Hirose, Akinori; Kurino, Hiroyuki; et al.; "Signal Propagation Characteristics in Polyimide Optical Waveguide With Micro-Mirrors for Optical Multichip Module;" <i>Japanese Journal of Applied Physics</i> , Vol. 38, No. 4B, April 1999
SP	Makihara, M.; "Microelectromechanical Intersecting Waveguide Optical Switch Based on Thermo-Capillarity;" 2000 IEEE/LEOS International Conference on Optical MEMS, Kauai, Hawaii, August 21-24, 2000
SP	Makihara, M.; Sato, Makoto; Shimokawa, Fusao; et al.; "Micromechanical Optical Switches Based on Thermocapillary Integrated in Waveguide Substrate;" <i>Journal of Lightwave Technology</i> , Vol. 17, No. 1, January 1999
SP	Makihara, M.; Shimokawa, F.; and Nishida, Y.; "Self-Holding Optical Waveguide Switch Controlled by Micromechanism;" <i>IEICE Trans. Electronics (Japan)</i> , Vol. E80-C, No. 2, February 1997

EXAMINER: <i>Sung Park</i>	DATE CONSIDERED: <i>1/21/05</i>
EXAMINER: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include a copy of this form with next communication to applicant	

FORM PTO-1449 LIST OF PATENTS AND OTHER ITEMS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)	ATTY. DOCKET NO. 268/001	SERIAL NO. 10/046,416
	APPLICANT: Telkamp, et al.	
	FILING DATE: October 19, 2001	GROUP: N/A

SP		Maruo, Shoji; Ikuta, Koji; and Ninagawa, Toshihide; "Multi-Polymer Microstereolithography for Hybride Opto-MEMS" has the same information as "Advanced Micro Sterelithography with Multi UV Polymers (System Development and Application to Three-Dimensional Optical Waveguides)," which is written in Japanese; <i>Journal of Transactions of the Institute of Electrical Engineers of Japan, Part E, Vol. 120-E, No. 7, July 2000</i>
SP		Matsumoto, Takuji; Kuwana, Yasuhiro; Hirose, Akinori; "Polyimide Optical Waveguide With Multi-Fan-Out for Multichip Module System;" <i>Proceedings from the Optoelectronic Interconnects V, Vol. 3288, San Jose, CA January 28-29, 1998</i>
SP		Matsumoto, Takuji; Fukuoka, Takeshi; Kurino, Hiroyuki; et al.; "Polyimide Optical Waveguide With Multi-Fan-Out for Multi-Chip Module Application;" <i>Proceedings of the 27th European Solid-State Device Research Conference, France, September 22-24, 1997</i>
SP		Moisel, Jorg; Guttmann, Joachim; Huber, Hans-Peter; "Optical Backplanes With Integrated Polymer Waveguides," <i>Journal of Optical Engineering, Vol. 39, No. 3, March 2000</i>
SP		Mueller, Raluca; Pavelescu, and Manea, Elena; "3D Microstructures Integrated With Optical Waveguides and Photodiodes on Silicon," <i>MELECOB 1998 9th Mediterranean Electromechanical Conference Proceedings, Vol. 1; May 18-20, 1998</i>
SP		Namba, Tohru; Uehara, Akihito; et al.; "High-Efficiency Micromirrors and Branched Optical Waveguides on Si Chips;" <i>Japanese Journal of Applied Physics, Part 1, Vol. 35, No. 2B, August 21-24, 1995</i>
SP		Oillier, Eric; Chabrol, Claude; et al.; "1 x 8 Micro-Mechanical Switches Based on Moving Waveguides for Optical Fiber Network Switching;" <i>2000 IEEE/LEOS International Conference on Optical MEMS, August 21-24, 2000</i>
SP		Ollier, Eric; and Mottier, P.; "Micro-Opto-Electro-Mechanical Systems: Recent Developments and LEIT's Activities," <i>Proceedings of the SPIE - The International Society for Optical Engineering, Vol. 4076, May 22-24, 2000</i>
SP		Shubin, I.; and Wa, P.L.K.; "Electrostatically Actuated 1 x 2 Micro-Mechanical Optic Switch;" <i>Electronics Letters, Vol. 37, No. 7; March 29, 2001</i>
SP		Storgaard-Larsen, Torben; "Plasma-Enhanced Chemical Vapor Deposited Silicon Oxynitride Films for Optical Waveguide Bridges for Use in Mechanical Sensors;" <i>Journal of the Electromechanical Society, Vol. 144, No. 4, April 1997</i>
SP		Voges, E.; Hoffmann, M.; "FB1 Optical Waveguides on Silicon Combined With Micromechanical Structures;" <i>Advanced Applications of Lasers in Materials and Processing; LEOS Summer Optical Meeting, 1996; IEEE, Piscataway, Jew Jersey, 96TH8154</i>
SP		Yariv, "Universal Relations for Coupling of Optical Power Between Microresonators and Dielectric Waveguides;" <i>Electronic Letters; Feb. 17, 2000 Vol. 36 No. 4</i>
SP		Yokoyama, S.; Nagata, T.; and Kuroda, Y.; et al.; "Optical Waveguides on Silicon Chips;" <i>Journal of Vacuum Science & Technology A, Vol. 13, No. 3, May-June 1995</i>
SP		"5. Switching Fabric Technologies," <i>Packet Switch Architecture</i> , CS-534, Dept. of Computer Science, University of Crete, Greece (undated document, file last updated April 2000 by M. Katevenis), http://archvlsi.ics.forth.gr/~kateveni/534/sec5.html , 35 pp.

EXAMINER: <i>Suppalc</i>	DATE CONSIDERED: <i>1/21/05</i>
EXAMINER: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include a copy of this form with next communication to applicant	